FLORENCE COPPER INC.



1575 W. Hunt Highway, Florence, Arizona 85132 USA

florencecopper.com

December 13, 2019

Ms. Maribeth Greenslade
Associate Environmental Engineer
Arizona Department of Environmental Quality
Groundwater Protection
1110 West Washington Street
Phoenix, Arizona 85007

Subject: Confirmation of Bulk Electrical Conductivity AL Exceedances

Dear Ms. Greenslade,

This memorandum conveys information describing the confirmation of bulk electrical conductivity alert level (AL) exceedances observed in three wells at the Production Test Facility (PTF) wellfield and fulfills the 5-day notification requirement set forth in Section 2.6.2.7 of Aquifer Protection Permit (APP) No. P-106360. The exceedances were confirmed on December 11, 2019, as described below.

As we have discussed, Florence Copper has observed a decrease in the bulk electrical conductivity measurements at several of the observation wells at the PTF wellfield, which are below the AL values established in APP No. P-106360. It is important to note that the ALs are a lower limit, and consequently an exceedance occurs when the measured values drop below the AL value. The exceedances were first observed in bulk electrical conductivity data collected on November 21, 2019, which were reported to Florence Copper on December 2, 2019, following completion of statistical analysis of the raw data.

The exceedances were confirmed by bulk electrical conductivity measurements made on November 26 and December 3, 4, and 5, 2019. Statistical analysis of the bulk electrical conductivity data collected through December 5 were completed on December 10, 2019. Florence Copper was notified that the exceedances were confirmed on December 11, 2019. The exceedances observed are summarized in Table 1

Florence Copper has commenced an evaluation of the wellfield conditions, operations, meteorological changes, and other environmental changes to identify the cause of the exceedances. Florence Copper will provide a report to the Arizona Department of Environmental Quality within 30 days describing the cause, impacts, and mitigation for the change in bulk conductivity in accordance with Section 2.6.2.7 of APP No. P-106360.

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Table 1, Summary of observed bulk electrical conductivity exceedances and confirmation values.

Horizon and Electrode Pair*	AL	11/21	11/26	12/3	12/4	12/5
	(ohm-m)	Results	Results	Results	Results	Results
		(ohm-m)	(ohm-m)	(ohm-m)	(ohm-m)	(ohm-m)
Horizon 1, between wells O-05 and	9.93	9.77	9.77	9.72	9.72	9.71
O-06						
Horizon 1, between wells O-06 and	9.93	9.85	9.84	9.82	9.79	9.81
O-07						
Horizon 2, between wells O-05 to	10.12	10.00	9.99	9.96	9.94	9.94
O-07						
Horizon 3, between wells O-05 to O-	10.33	10.28	10.28	10.23	10.22	10.21
06						
Horizon 3, between wells O-05 to O-	10.33	10.20	10.20	10.13	10.13	10.10
07						

^{*}Horizon 3 is the deepest monitoring horizon and is the closest to the injection zone, horizon 1 is the shallows monitoring horizon and is furthest from the injection zone.

Please contact me at 520-316-3710 if you require any additional information.

Sincerely,

Florence Copper Inc.

Richard Tremblay

Vice President Operations

cc: David Albright, EPA Region 9

Nancy Rumrill, EPA Region 9



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